

RADIANT ENERGY SOURCE SYSTEMS, DEVICES, AND METHODS CAPTURING, CONTROLLING, OR RECYCLING GAS FLOWS

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ABSTRACT

This document discusses, among other things, systems, devices, and methods that increase radiant energy output, such as by using the waste airflow of combusted gas and/or ambient airflow resulting from convection, or by reducing or
10 avoiding cooling effects of such airflows. In one example, the collected energy can be used to drive other secondary radiant sources or to preheat combustion air or ambient air. In another example, segmented secondary radiant sources are thermally isolated from each other to operate as a cross flow exchanger that exchanges thermal energy from a heated gas to a heated surface that provides
15 radiant energy output. In a further example, a re-radiant membrane can separate the radiant source from the environment and/or reconfigure the effective shape of the primary radiant energy source.